Work Order ID 56119	W	ork	Qı	rder	ID	561	19
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February 10, 2010 1:37:01 PM



Page 1

Item ID:

D205-634-041

Accept

s

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

Required Date: 2/26/10

2/10/10

QC:

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

 \mathcal{M}

Date: 10-2-10 7

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start

Stop



Sequence ID/ Work Center ID Operation **Description**

Set Up/ Run Hours Draw Number Draw Rev. Plan According Code Qty

Accept Rejective Qty Qty

Reject Reject Qty Number

Insp. Stamp

Draw Nbr

Revision Nbr

D2580

Rev D

100

DOCUMENT CONTROL

Memo

0.00

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

110

CNC Bend 1

CNC Bend 1

CNC Delta 100 Bender

0.00

BENDING MACHINE - SKIDTUBES

Memo

0.00

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

410/2/11

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Dart Aerospace Ltd	3
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W/O:			WC	RK ORDER CHANG	GES				
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #:							
	Res	solution:	Disposition):	QA: N/C CI	osed:		Date: _	
NCR:			WORK ORDE	R NON-CONFORM	ANCE (NCF	R)			
DATE	STEP	Description of NC	Corrective Action Section Initial Action Description			Verific	cation	Approval	Approval
		Section A	Chief Eng	Action Description Chief Eng	Sign 8 Date	Secti	on C	Chief Eng	QC Inspector
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Work Order, ID 56119



Page 2

February 10, 2010 1:37:01 PM

Item ID:

D205-634-041

Accept



Setup Start



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

2/10/10

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

0.00

0.00

Date:

Run

Start

Stop

Required Date: 2/26/10

QC:

SPC (Y/N): Date:

Date: ___

Stop

Sequence ID/ Work Center ID

120

Skidtubes

Description

Operation

Set Up/ **Run Hours**

Draw Number Draw Rev.

Plan Code

Accept Qty

Reject Qty

Reject Number Stamp

Insp.

Skidtubes

Memo

1- Deburr ends

QC5- Inspect part completeness to step on W/O

2- C'sink holes as per dwg without cutting fluid

- 3- Prepare tube for welding, remove alodine as required.
- 4- Scribe batch number insied aft end of tube.

N 10/2/11

130

Memo

Quality Control

Dart Aerospace Ltd	Dart	Aeros	pace	Ltd
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W/O:			WORK ORDER CHANGES									
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
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Part No	•	PAR #:	Fault Cat	egory:	NCR: Yes	No DQ	A:	Date: _				
		esolution:										
NCR:			VORK ORI	DER NON-CONFORMA	NCE (NCF	R)	****					
DATE	STEP	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval			
	J	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Secti	on C	Chief Eng	QC Inspector			
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February 10, 2010 1:37:01 PM

Item ID:

D205-634-041

Accept



Setup Start



Revision ID:

Item Name:

Required Date: 2/26/10

Replacement Skidtube

Start Date: 2/10/10

Start Qty: 1.00 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

Stop

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID

140



Skidtubes

Skidtubes

Operation Description Set Up/ **Run Hours** Draw Number Draw Rev.

Plan Accept Qty Code

Reject Qty

Reject Number Stamp

Insp.

Memo

0.00

0.00

1-Weld step D2576 as per Dwg. D2580 and QSI 004 A/REITO Aluminum Rod 7

2-Prep per QSI 005 and weld crossbolt spacers D2579 as per Dwg. D2580, QSI

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill A/RDFID Aluminum Rod

3-Grind welds as per Dwg D2580 Grind flush ridge made from bending

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web.Deburr

5-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580. Deburr holes

6-Drill pilot holes for aft cap using DT 8215Open holes to 0.208". Deburr

7-Drill pilot holes for Tow ring using DT8091, open to .640"and Deburr

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Dart Aerospace Lt	d	l
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W/O:			W	ORK ORDER CHANC	GES				
DATE	STEP	PRO	OCEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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			-						
Part No	:	PAR #:	Fault Cat	egory:	_ NCR: Yes	No DQ	A :	_ Date: _	
-	Re	esolution:	Dispositi	on:	_ QA: N/C CI	osed:		Date: _	
NCR:			WORK ORE	DER NON-CONFORM	ANCE (NCF	R)			
DATE	STEP	Description of NC	Initial	Corrective Action Sec Action Description	tion B		cation	Approval	Approval
		Section A	Chief Eng	Chief Eng	Date	Secti	ion C	Chief Eng	QC Inspector
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Work Order ID 56119



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Item ID:

D205-634-041

Accept



Setup Start



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

Required Date: 2/26/10

2/10/10

QC:

Start Qty: 1.00 **Req'd Qty:** 1.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

0.00

0.00

Date:

Run

Start

Stop

Stop

Date:

SPC (Y/N):

Draw

Draw

Date:

Plan

Accept

Reject

Insp.

Sequence ID/ Work Center ID

150

Ouality Control

Operation Description

QC10- Inspect visual per QS1004- ground welds

QC5- Inspect part completeness to step on W/O

Set Up/ **Run Hours**

Number

Rev.

Code

Qty

Reject Qty

Number Stamp

160

Memo

10/02/22

Quality Control

170

HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

Memo

Memo

PAR 09-043 BR 10-3-1

	-								
W/O:			WC	ORK ORDER CHANG	GES	,,,, ····			
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #:							
	Re	solution:						Date: _	
NCR:			WORK ORDI	ER NON-CONFORM	ANCE (NCR)			
DATE	STEP	Description of NC	Initial		ction B	Verific	ation	Approval	Approval
· · · · · · · · ·		Section A	Chief Eng	Action Description Chief Eng	Sign & Date	Secti	on C	Chief Eng	QC Inspector
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Item ID:

D205-634-041

Accept



Setup Start



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

2/10/10

QC:

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

0.00

Date:

Start

Stop

Required Date: 2/26/10

Date:

SPC (Y/N):

Date:

Stop

Run

Sequence ID/ **Work Center ID**

180



Powdercoat

Powder Coating

Operation Description

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

1113170

Set Up/ **Run Hours** Draw Number

10/03/01

Rev. Code

Plan

Draw

Accept Qty

Reject Qty

Reject Insp. Number Stamp

Memo

START TIME:

0.00

OVEN TEMPERATURE: 37 602

FINISH TIME:

2:30xx

190

Memo

QC3- Inspect Part Finish

0.00 / 10-03-2

Quality Control

W/O:			WC	RK ORDER CHAN	GES		-			
DATE	STEP	PROCEDURE CHANGE				,	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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			·							
Part No	:	PAR #:	Fault Cate	gory:	NCR: Y	es N	o DQ	A :	_ Date: _	- H
		solution:								
NCR:			WORK ORDI	ER NON-CONFORM	IANCE (N	CR)		·		
DATE STEP		Description of NC			ction B		Verific	ation	Approval	Approval
		Section A	Initial Chief Eng	Action Description Chief Eng	Sig D	n & ate	Secti	on C	Chief Eng	QC Inspector
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			,							

Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date: Required Date: 2/26/10

2/10/10

Start Qty: 1.00

Req'd Qty: 1.00



Date:

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Tooling: Date:

Date:_____

Run

Start

Stop

Sequence ID/

Operation Description Work Center ID

QC:

Set Up/ **Run Hours**

SPC (Y/N):

Draw Number

Draw Rev.

Date:

Plan Accept Code **Qty**

Reject **Qty**

Reject Insp. Number

Stamp

200

HandFinish

Hand Finishing

Memo

0.00

0.00

1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of

Sikaflex on insert holes before installing wearplates A/R UDD Sikaflex-291 D// 845. Sikaflex expire date:

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with

Sikaflex. Clean excess adhesive A/R 🗆 🗀 Sikaflex-291

Sikaflex expire date: 10/6 8

5-Wing Walk as per Dwg D2580 and QSI 005 4.4

BR 10-03-2. D.

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W/O:			WC	RK ORDER CHANG	ES				
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A:	Date:	
	Res	olution:	Disposition	າ:	_ QA: N/C C	losed:		Date: _	
NCR:			WORK ORD	ER NON-CONFORMA	NCE (NC	R)			
DATE	STEP	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval
		Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date		on C	Chief Eng	QC Inspector

Work Order ID 56119

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Item ID:

D205-634-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date: Required Date: 2/26/10

2/10/10

QC:

Start Oty: 1.00

Reg'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Date:

Tooling:

0.00

0.00

0.00

0.00

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for

SPC (Y/N):

Date:

Date:

Start

Run

Stop



Sequence ID/ **Work Center ID**

210

Quality Control

Operation **Description**

QC5- Inspect part completeness to step on W/O

Foreign objects per QSI 024

Set Up/ **Run Hours** Draw Number Draw Rev.

Plan Code

Accept Qty

Reject Reject Qty

Insp. Number Stamp

8

220

Packaging

Packaging

Packaging

Memo

Memo

Identify and pack for shipping as per PPPD205-634-041

Location:

PPP Rev:

230

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

Dart	Aer	osp	ace	Ltd
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W/O:			WORK ORDER CHANGES									
DATE	STEP	PR	OCEDURE CHA	NGE	Ву	C	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
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Part No		PAR #:										
	Re	esolution:	Disposition	1:	QA: N/C	Close	ed:		Date: _	·		
NCR:		,	WORK ORDI	ER NON-CONFORM	ANCE (NO	CR)						
DATE	STEP	Description of NC			ction B		Verific	ation	Approval	Approval		
		Section A	Chief Eng	Action Description Chief Eng	Sig Da		Section	on C	Chief Eng	QC Inspector		
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Picklist Print

February 10, 2010 1:37:06 PM

Work Order ID: 56119

D205-634-041 Parent Item:

Replacement Skidtube Parent Item Name:

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Manufactured

No

Start Date: 2/10/10

Required Date: 2/26/10

Required Qty: 1.00 Start Qty: 1.00

Unit of Qty on Remaining Qty Date Replacement Mfg/ Primary Last Route Bin Status 110 Each 5.0000 1.0000 No Manufactured

205 Skidtube bent detail

Component Item ID/

Loc Oty Warehouse Location Main Warehouse LG 54541 54697

140

Loc Code

141.0000 1.0000

Loc Qty Loc Code Warehouse Location Main Warehouse ST 141 46661 94 52215 47

D2576-3

D2580-1

Step (maching detail)

W/O:			W	ORK ORDER CHAN	GES					
DATE STEP		PR	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cate	gory:	NCI	R: Yes	No DQ /	A:	Date:	
						QA: N/C Closed: Date:				
NCR:		,	WORK ORD	ER NON-CONFORM	ANCE	(NCR)			1,
DATE	STEP Description of NC		Corrective Action Section B			Vari		ation	Approval	Approval
		Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Secti	on C	Chief Eng	QC Inspector
										

Picklist Print

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Work Order ID: 56119

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09 SS Wearplates & Gaskets

Component Item ID/ D2579 Replacement Mfg/

Mfg/ Bi

Bin Primary

Last

JLM

Route 140 Unit of Each

Qty on Remaining 147.0000 20.0000

20.0000

Start Date: 2/10/10

Qty

Start Oty: 1.00

Date

Required Date: 2/26/10

Required Qty: 1.00

Status

Crossbolt Spacer

Warehouse	Loc Oty	Loc Code	
Location			
Main Warehouse			
LG	25	-	
51525	4	÷	
53780	3		•
54543	18		
Main Warehouse			
ST	122		
43988	4		
46434	4		
46956	2		
47797	9		
48272	2		
51314	71		
51315	30		
`			

A

B 54642 B 56145

BE 10/02/17 BE 10/02/16

	•										
W/O:			WORK ORDER CHANGES								
DATE	STEP	PROCEDURE CHANGE			E	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector	
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Part No	:	PAR #:	Fault Cate	gory:	_ NCR:	Yes I	No DQ	A :	Date:		
Resolution:			Dispositio	Disposition: QA: N/C Closed: Date:							
NCR:		,	WORK ORD	ER NON-CONFORM	ANCE (NCR)				
DATE	STEP				Section B			ation	Approval	Approval	
	JILI	Section A	Initial Action Description Chief Eng Chief Eng			ign & Date	n& Section C		Chief Eng	QC Inspector	
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Picklist Print

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Work Order ID: 56119

Parent Item Name:

Parent Item:

D205-634-041

Comments:

Replacement Skidtube IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev. O 06.02.28 Added paperwork

No

IPP Rev:P 07-07-09 SS Wearplates & Gaskets

Purchased

Start Date: 2/10/10

Start Oty: 1.00

Required Date: 2/26/10

Required Qty: 1.00

Qty on Date Remaining Qty Replacement Mfg/ Bin Primary Last Route Unit of Component Item ID/ Status 151.0000 1.0000 200 Each D2855 Manufactured No

Cap

Warehouse	<u>L</u> c	oc Qty	Loc Code	
Location				
Main Warehouse				
ST026		151		
50513		1		
50770		1		
51539		39		
51539 53791		110		
	200	Each	1,773.000	2.000

00

AN3-5A

Bolt

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	1773	
100188 105057 ₀	188	
105057	1585	

- bl 16-3-2

W/O:			W	ORK ORDER CHANG	GES				
DATE STEP		PR	PROCEDURE CHANGE			Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No:		PAR #:							
· · · · · · · · · · · · · · · · · · ·		Dispositio	_ QA: N/C C	QA: N/C Closed: Date:					
NCR:		· 	WORK ORD	ER NON-CONFORM	ANCE (NCF	7)		, ,	
DATE	STEP	Description of NC	Corrective Action Section B			Verific	fication App	Approval	Approval
		Section A	Initial Chief Eng	Action Description Chief Eng	Sign and Date	Sect	ion C	Chief Eng	QC Inspector
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Picklist Print

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Work Order ID: 56119

Parent Item:

D205-634-041

Parent Item Name:

Component Item ID/

Replacement Skidtube

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09 SS Wearplates & Gaskets

Replacement Mfg/

Purchased

Primary Bin No

Last

Route

200

Unit of Each

Qty on

Remaining 3,459.000 2.0000

Qty

Start Date: 2/10/10

Start Qty: 1.00

Date

\$10-03-2

Required Date: 2/26/10

Required Qty: 1.00

Status

AN960JD10L

Comments:

Washer

Loc Qty Loc Code Warehouse Location Main Warehouse ST 3459 101291 16 105793 49 110985 3394

Purchased

No

200

986.0000 50.0000

Insert

ALS7-1032-130

<u>Warehouse</u>	Loc Qty	Loc Code	
Location			
Main Warehouse			
ST	986		
108606	52		
111529	130		
111779	34		
112772	11		
113238	759		

Each

ALS4-1032-130

50. BR 10-03-2

Page 4

W/O:			W	ORK ORDER CHANG	GES					
DATE STEP		PROCEDURE CHANGE				Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No		PAR #:								
Resolution:			Dispositio	n:	QA	: N/C Cld	osed:		Date:	
NCR:		•	WORK ORD	ER NON-CONFORM	ANCE	(NCR)			
DATE	STEP	Description of NC	Description of NC Corrective Action		Section B V			cation	Approval	al Approval
	JILI	STEP Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date		Chief Eng	QC Inspector	
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February 10, 2010 1:37:06 PM

Work Order ID: 56119

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev. O 06.02.28 Added paperwork

SS Wearplates & Gaskets

IPP Rev:P 07-07-09

JLM

Start Date: 2/10/10

Required Date: 2/26/10

Start Qty: 1.00

Required Qty: 1.00

Replacement Mfg/ Component Item ID/

Purchased

Bin Primary No

Last

Route 200

Unit of Each

Qty on Remaining 1.263.000 50.0000

Qty

Date

Status

OLT	

AN3C4A

Warehouse	Lo	Loc Qty		
Location				
Main Warehouse				
ST		1263		
112314		13		
112720		12		
112724		3		
112829		1		
112991		2		
113121		64		
113226		344		
113422		124		
113644		500		
113749		200		
	200	Each	388.0000	50.0000

AN960C10L

Purchased

No

washer

NUSTHIPC 0332R

Warehouse	Loc Qty	Loc Code	
Location			4 -
OFFSHORE	7		50. K10-3-2
FG (13737	100		
103585	100		
Main Warehouse			
ST	288		
112116	128		
112612	160		

W/O:			WC	ORK ORDER CHANG	ES				*
DATE STEP		PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	:	PAR #:	Fault Cate	gory:	_ NCR: Yes	No DQ	A:	Date:	
Resolution:								·	
NCR:		,	WORK ORD	ER NON-CONFORMA	NCE (NCF	R)			
DATE	STEP	Description of NC		Corrective Action Section B			cation	Approval	Approval
	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date		ion C	Chief Eng	QC Inspector	
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February 10, 2010 1:37:06 PM

Work Order ID: 56119

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev. O 06.02.28 Added paperwork

Manufactured

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Date: 2/10/10

Start Qty: 1.00

Required Date: 2/26/10

Required Qty: 1.00

Date

Component Item ID/ D3566-13

Replacement Mfg/ Manufactured

No

Bin Primary

Last

Route 200

Unit of Each

Qty on 83.0000

Loc Code

Remaining 1.0000

Qty

Status

Gasket

Warehouse	Loc Qty				
Location					
Main Warehouse					
FP /		81			
53461		81			
Main Warehouse					
ST		2			
45717		1			
50265		1			
	200	Each			

1 Bl 10.3-2

34.0000 1.0000

D3566-5

Gasket

Warehouse	Loc Qty	Loc Code	
Location			
Main Warehouse			
FP19)	30		
55026	18		1 Bl10.3-2
55335	12		
Main Warehouse			
ST	4		-
36113	1		
46186	1		
47318	1		
51260	1		<u></u>

	-													
W/O:			WORK ORDER CHANGES											
DATE	STEP	PR	OCEDURE CHA	NGE	Ву	D	ate G	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
Part No	:	PAR #:	Fault Cate	gory:	NCR: Ye	s No	DQA: _	-	_ Date: _					
			tion: Disposition:						QA: N/C Closed: Date:					
NCR:			WORK ORD	ER NON-CONFORM	ANCE (N	CR)		·						
DATE STI	STEP	Description of NC	Description of NC			Section B Vo			Approval	Approval				
	Section A	Section A	Initial Chief Eng	Action Description Chief Eng	Sig Da	n &	Section C		Chief Eng	QC Inspector				
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Picklist Print

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Work Order ID: 56119

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Manufactured

Start Date: 2/10/10

Required Date: 2/26/10

Start Qty: 1.00

Required Oty: 1.00

Component Item ID/ D3566-1

Replacement Mfg/

Bin Primary Manufactured No

No

Last

Route

200

Unit of Each

Qty on 39.0000

Remaining 2.0000

Qty

Date

Status

Gasket

Warehouse	Loc	Oty	Loc Code		
Location					
Main Warehouse					
FP		34			
52512 .*		3			
54480		1			
55011		3			
55320		27			2/0-3-2
Main Warehouse					
ST		5			
46349		1			
51218		1			
51259		3			
	200	Each	5.0000	1.0000	

D3564-11

Wearshoe

Warehouse	Loc Qty	Loc Code	
Location			
Main Warehouse			
FP19 /	3		
52125	3		1 1/2 10.3.2
Main Warehouse			
ST	2		
45823	1		
50112	1		

Dart Aerospace Ltd	Da	art	Aer	osi	oace	Ltd:
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W/O:			V	VORK ORDER CHANG	NGES					
DATE	STEP	PRO	OCEDURE CH	IANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No	:	PAR #:	Fault Ca	tegory:	NCR: Yes	No DQA	۱:	_ Date: _		
Resolution: Disposition:				ion:	QA: N/C C	losed:		Date: _		
NCR:			WORK OR	DER NON-CONFORM	ANCE (NC	R)		<u> </u>	, 27.56	
DATE	STEP	Description of NC			tion B	Veritication			Approval	
		Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date		on C	Approval Chief Eng	QC Inspector	
			,				,			

February 10, 2010 1:37:06 PM

Work Order ID: 56119

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev. O 06.02.28 Added paperwork

Manufactured

IPP Rev:P 07-07-09

SS Wearplates & Gaskets

Start Date: 2/10/10

Required Date: 2/26/10

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ D3564-13

Replacement Mfg/ Manufactured

Bin No

Primary

Last

Route 200

200

Unit of Each

Qty on 23.0000

Loc Code

Remaining 1.0000

Qty

Date Status

Wearshoe

Warehouse Location

JLM

Main Warehouse FP17

51611 Main Warehouse ST

> 45409 46495

12 2 10

Loc Qty

12

12

11

11

Loc Qty

Each

14,0000 1.0000

Wearshoe

D3564-9

Warehouse Location Main Warehouse FP19 55025

Main Warehouse ST

44659 45825 Loc Code

V bl 10-03-2

Dart	Aeros	pace	Ltd
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W/O:			W	ORK ORDER CHANG	ES				
DATE	FE STEP PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
					.]				
 									
								C M	
Part No	•	PAR #:	Fault Cate	egory:	_ NCR: Yes	No DQ	A :	_ Date: _	
		solution:							
NCR:			WORK ORD	ER NON-CONFORMA	ANCE (NCR)		, , , , , , , , , , , , , , , , , , , ,	
DATE STEP	STEP	Description of NC Corrective Action			Section B Verif			Approval	Approval
	Section A		Initial Action Descri Chief Eng Chief Eng		Sign & Date			Chief Eng	QC Inspector

Picklist Print

Page 9

February 10, 2010 *1:37:06 PM

Work Order ID: 56119

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09 SS Wearplates & Gaskets

JLM

Start Date: 2/10/10

Required Date: 2/26/10

Start Qty: 1.00 Required Qty: 1.00

Bin Primary Remaining Qty Date Replacement Mfg/ Unit of Qty on Component Item ID/ Last Route Status 44.0000 1.0000 D3564-5 200 Each No Manufactured

Wearshoe

Warehouse	Loc Qty	Loc Code	
Location			
OFFSHORE			
FG	2		
34806	2		
Main Warehouse			
FP19	40		
51925	1		
54772	13		
55024 /	12		
55333	14		1/10.03.2
Main Warehouse			•
ST	2		
45824	1		<u></u>
47433	1		

		W	ORK ORDER CHANGI	ES				
STEP	PR	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A:	Date:	
		WORK ORD	ER NON-CONFORMA	NCE (NCR)			
STED					Verific	ation	Approval	Approval
Section A		A Initial Action Des		Sign & Date	Section C		Chief Eng	QC Inspector
		:PAR #: Resolution: STEP Description of NC	STEP PROCEDURE CHARACTER STEP PAR #: Fault Cate PAR #: Fault Cate Disposition	STEP PROCEDURE CHANGE PAR #: Fault Category: Resolution: Disposition: WORK ORDER NON-CONFORMA STEP Description of NC Section A Section Section Initial Action Description	STEP PROCEDURE CHANGE By PROCEDURE CHANGE By Fault Category: NCR: Yes Resolution: Disposition: QA: N/C Clo WORK ORDER NON-CONFORMANCE (NCR STEP Description of NC Corrective Action Section B Initial Action Description Sign &	STEP PROCEDURE CHANGE By Date PAR #: Fault Category: NCR: Yes No DQ/ Resolution: Disposition: QA: N/C Closed: WORK ORDER NON-CONFORMANCE (NCR) STEP Description of NC Section A	STEP PROCEDURE CHANGE By Date Qty	STEP PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr

Picklist Print

Page 10

February 10, 2010 1:37:06 PM

Work Order ID: 56119

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

Bin

No

IPP Rev. O 06.02.28 Added paperwork

Replacement Mfg/

IPP Rev:P 07-07-09 SS Wearplates & Gaskets

Manufactured

JLM

Primary

Last

Route

200

Unit of Each

Remaining Qty on 668.0000 16.0000

Qty

Start Date: 2/10/10

Start Oty: 1.00

Date

Required Date: 2/26/10

Required Qty: 1.00

Status

D2594-3

O-Ring, 205 Skidtube

Component Item ID/

Loc Code Loc Qty Warehouse Location Main Warehouse FP 527 27 51613 500 55546 Main Warehouse 16. Bl 10-03-2 ST 141 141 52562

	•								
W/O:			WC	RK ORDER CHANG	ES				
DATE	STEP	PR	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cate	gory:	_ NCR: Yes	No DQ	A:	_ Date: _	
		solution:	Dispositio	_ QA: N/C CI	osed:				
NCR:			WORK ORDI	ER NON-CONFORMA	ANCE (NCF	R)	.		
DATE ST	STEP	Description of NC	Corrective Action Section B			Sign & Verification A			Approval
		Section A		Initial Action Description Chief Eng Chief Eng		Section C		Chief Eng	QC Inspector
					:		:		

February 10, 2010 1:37:06 PM

Work Order ID: 56119

Parent Item:

Component Item ID/

D205-634-041

Parent Item Name:

Replacement Skidtube

IPP Rev:N[102.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ Comments: IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09

Replacement Mfg/

Manufactured

No

SS Wearplates & Gaskets JLM

Bin Primary

Last

Route 200

Unit of Each

Qty on 705.0000 16.0000

Remaining

Qty

Start Date: 2/10/10

Start Qty: 1.00

Date

Required Date: 2/26/10

Required Qty: 1.00

Status

D2594-1

Plug, 205 Skidtube

Warehouse	Loc Oty	Loc Code	
Location			
Main Warehouse			
FP	577		
54008	1		
54643	15		
55002	561		16 Bl 10.03-
Main Warehouse			
ST	128		
42221	16		
42807	92		
43884	3		
46435	2		
51527	9		
51757	6		

		— · 							
W/O:			WC	ORK ORDER CHANG	iES			_	
DATE	STEP	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cate	gory:	_ NCR: Yes	No DQ	A:	Date: _	
		esolution:							
NCR:				ER NON-CONFORMA					
DATE	STEP	Description of NC Corrective Action			Section B Ve			rification Approval	Approval
DATE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Secti		Chief Eng	QC Inspector
		•							<u>.</u>



DESIG	H	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECH	(ED.	APPROVED	DRAWING NO. REV. [
	The same of the sa	 	D2580 SHEET 1 OF 3
DATE			TITLE SCALE
07.0	2.27		205 SKIDTUBE ASSEMBLY NTS
Α		96.09.16	NEW ISSUE
В		96.12.02	AS MANUFACTURED
С		98.08.26	REDRAWN, INCLUDED DEO 9094/9097
D		07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183



QTY	QTY	Part Number	Description	
-041	-045			
_ X		D2580-041	SKIDTUBE ASSEMBLY	
	Х	D2580-045	SKIDTUBE ASSEMBLY	
1	1	D2500-1-190	EXTRUSION	
1	1	D2576-3	STEP	
20	24	D2579	CROSS BOLT SPACER	
16	16	D2594-1	PLUG	
16	16	D2594-3	O-RING	
1	1	D2596	205 WEB	
1	1	D2855	AFT CAP	
1	1	D3564-5	WEARSHOE	
1	1	D3564-9	WEARSHOE	
1	1	D3564-11	WEARSHOE	
1	1	D3564-13	WEARSHOE	
2	2	D3566-1	GASKET	
1	1	D3566-5	GASKET	
1	1	D3566-13	GASKET	
50	50	ALS7-1032-130	INSERT	
		or AKS7-1032-130		Į
	'	or AKS4-1032-130	1	
		or AELS-1032-130		
50	50	AN3C4A	BOLT	
2	2	AN3-5A	BOLT	
50	50	AN960C10L	WASHER	
2	2	AN960JD10L	WASHER	

SHOP COPY

RETURN OF

ENGINEERING

JNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. SGALL

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:

SEE NOTES ON

PAGE 2 FOR D2580-041 AND

PAGE 3 FOR D2580-045

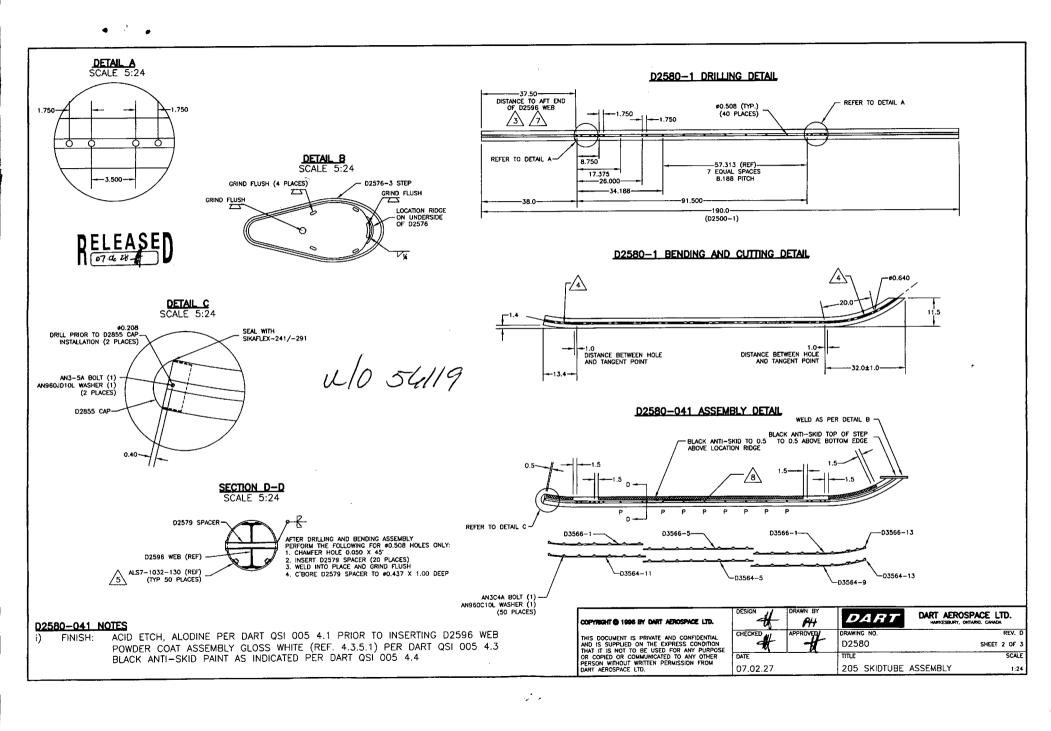
8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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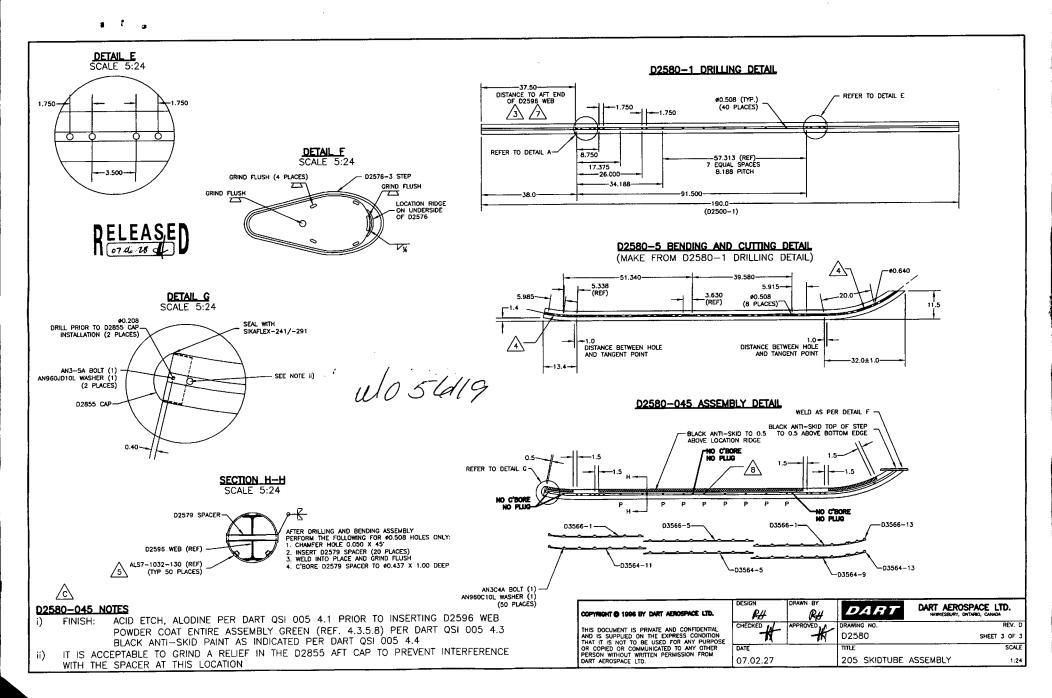
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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES								
DATE	STEP	PRO	PROCEDURE CHANGE			Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
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	Ŗ	lesolution:	solution: Disposition:			QA: N/C Closed: Date:				
NCR:			WORK ORDI	ER NON-CONFORMA	ANCE (NO	R)				
DATE	STEP	Description of NC	Nt.		ion B	Varitication		Approval	Approval	
		Section A	Initial Chief Eng	Action Description Chief Eng	Sigr Dat		ion C	Chief Eng	QC Inspector	
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W/O:			WC	RK ORDER CHANG	ES	· · · · · · · · · · · · · · · · · · ·		_ (•
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Part No	:	PAR #:	Fault Cate	gory:	_ NCR: Yes	No DQ	A:	Date:	
	R	esolution:	Disposition	າ:	_ QA: N/C C	losed:		Date: _	
NCR:			WORK ORDI	ER NON-CONFORMA	ANCE (NC	?)			
DATE	STEP	Description of NC Corrective Action			ion B	Verific	Verification Approva		Approval
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W/O:			WO	RK ORDER CHANG	GES				
DATE	STEP	PRO	OCEDURE CHAI		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
,						.			
		·							
Part No		PAR #:							
	R	esolution:	Disposition	:	QA: N/C (Closed:		Date: _	
NCR:			WORK ORDE	R NON-CONFORM	ANCE (NC	R)			
DATE	STEP	Description of NC			tion B	Verific	ation	Approval	Approval
	0.2.	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Dat	& Secti		Chief Eng	QC inspector
								·	

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AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Berclay Ellight	
Job number: 542023	
Part number: Daos way out	
Description: 205 skid tube	
Welding Process: Tig[] Mig[]	
Base materiel: Aluminian	
Current: AC[/ DC[]	

TEST REQUIREMENTS AND RESULTS

Visual: Penetration: <u>UNACCEPTABLE</u>	pass[] fail[] pass[] fail[]
Cracks: Undercut: Pin holes: Overlap (cold lap) Porosity (surface): Coloration:	pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[]
Qualifier (a)). S. Welder Boxelay Ellot	Date of Test Coupon <u>C9.12.17</u> Date of Test Coupon <u>C9.12.17</u>

The above named individual is qualified in accordance with AWS D17.1.2001 to weld